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ABSTRACT

The technical report of the Pilot Evaluation Study of Functional Literacy Project in Lucknow District, Uttar Pradesh, India presents the research procedures and statistical analysis for the previously published non-technical report of the study. The main study objectives were to obtain qualitative and quantitative measurements of attainment and use of literacy skills, the impact of the program on the individual with particular emphasis on changes in agricultural production, and teaching/learning situation. Experimental groups of 240 randomly selected respondents from 12 villages who had attended functional literacy classes were matched with 80 control group respondents from four villages without functional literacy programs and assessed for: (1) literacy attainment (reading ability level, writing ability level, arithmetic performance level, degree of comprehension, degree of application of reading/writing ability, and number of drop-outs); (2) living standard; (3) professional competence; (4) relation toward means of mass communication and personal sources; (5) attitude toward education; and (6) social participation. The data, which is presented in tabular form, positively related high literacy achievement to knowledge regarding High Yield Variety package practices, more adoption of farm technology, and more favorable attitudes toward adult literacy programs. An evaluation form is appended. (EA)

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FARMERS' TRAINING AND FUNCTIONAL LITERACY

A
PILOT EVALUATION STUDY
OF
FUNCTIONAL LITERACY PROJECT
IN
LUCKNOW DISTRICT

TECHNICAL REPORT

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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PREFACE

This is a Technical Report of the Pilot Evaluation Study of Functional Literacy Project in Lucknow District. The Non-technical Report of this Study was already published by the Ministry of Education and Social Welfare, Directorate of Adult Education, in April 1971 which aroused considerable interest both among policy-making and implementing bodies as well as among academic people. The present publication describes the research procedures in more detail, gives a more detailed presentation of statistical evidence and a more exhaustive analysis of the data. The Interview Schedule is also attached for the reader's ready reference.

2. It is hoped that this Report would be a valuable contribution to evaluation of Functional Literacy Programme not only in this country, but also to the World Experimental Literacy Programme as a whole.

3. Our acknowledgements are due to Dr. J.A. Ziolkowski, Unesco Expert in Evaluation for going through the manuscript and for suggesting valuable modifications in its presentation and for its editing it for printing.

J. Veeraraghavan
Director
Adult Education & Statistics

New Delhi
19th August, 1972

FOREWORD

One of the recent developments, which is of great significance to countries like ours, is the idea of linking education to development, particularly for increasing production. In the field of adult literacy, this has led to the emergence of the concept of functional literacy or work-oriented literacy. Based on this concept, we have initiated Farmers' Functional Literacy Project (Kisan Saksharata Yojana) which is one of the three components of the integrated programme of Farmers' Training and Functional Literacy jointly sponsored by the Ministries of Food and Agriculture, Information & Broadcasting, and Education on a pilot basis in 100 High Yielding Varieties districts.

2. Being a pilot project, its evaluation is essential, not only to assess the achievements in terms of the stated objectives, but also to provide continuous feed-back for programme improvement. An attempt in this direction was made by making an evaluative study of the project in Lucknow district of Uttar Pradesh in a scientific and systematic manner during November-December, 1970.

3. The Study throws up some very positive results. It has, in the first instance, presented evidence that the programme of Functional Literacy has developed literacy skills of varying degrees of utility, disseminated knowledge of improved agricultural practices, speeded up the adoption rate of these practices and effected certain attitudinal changes. There is also abundant evidence to indicate that the functional literacy training has a positive influence in making an impact on agricultural knowledge and adoption of innovations. These indeed are very encouraging results.

4. The Study has provided us valuable data on the basis of which the content and quality of the programme can be improved and the areas which need to be strengthened.

5. This Study has helped us in testing out methods and

procedures which can be used in an expanded evaluation scheme.

6. A Committee of Direction consisting of the following was assigned the overall responsibility of conducting the pilot evaluative study :

Dr. S.N Saraf
Director
Bureau of Pilot Projects, Adult Education & Statistics
Ministry of Education & Social Welfare

Dr. T. A. Koshy
Director
Directorate of Adult Education,
Ministry of Education & Social Welfare

Mr. Marion T. Hedegaard
Unesco Expert on Functional Literacy Evaluation

Dr. (Mrs.) S. Mulay
Deputy Director
Directorate of Adult Education
Ministry of Education & Social Welfare

Mr. R. S. Mathur
Senior Technical Assistant
Directorate of Adult Education
Ministry of Education & Social Welfare

7. The design of the Study, the schedules and tests were prepared by Dr. (Mrs.) S. Mulay in consultation with Mr. Marion T. Hedegaard. In the preparation of the tests, Shri K. B. Rege, Assistant Director, rendered valuable assistance. The field work consisting of data collection, administration of literacy tests, etc. was done by Shri R. S. Mathur, Senior Technical Assistant and Shri S. V. Gupta, Technical Assistant in the Directorate assisted by Messers R. S. Singh, S. N. Rai, P. P. Sharma, R. S. Kushwaha and Bahau Investigators specially appointed for this purpose. They also assisted in tabulation and other work in connection with the Study. Analysis of data, their interpretation and

drawing conclusions was done by Dr. (Mrs.) S. Mulay in collaboration with Mr. Hedegaard assisted by Messers R. S. Mathur and S. V. Gupta. Mr. Y. N. Saxena, Sub-district Inspector of Schools in Lucknow District and Mr. K. S. Shrote, Principal, Farmers' Training Centre at Bakshi-Ka-Talab, cooperated in the field work and the U. P. Government agreed to our request to select Lucknow District for this evaluative study. The first draft of this technical report was prepared by Dr. (Mrs) Mulay in collaboration with the concerned officers in the Directorate of Adult Education. This draft was revised and edited by the Committee of Direction.

8. We would like to take this opportunity to sincerely thank all those who were directly or indirectly involved in the field work, analysis and collection of data. We would also welcome comments and suggestions on this Report, so that the methods and techniques of evaluation can be improved.

9. I have great pleasure in releasing this Report which, we hope, would be of considerable interest to adult educators, social scientists, educational planners and administrators in this country and abroad.

S. N. Saraf
Director
Bureau of Pilot Projects
Adult Education & Statistics
Ministry of Education & Social Welfare

New Delhi
19th July, 1972

I. INTRODUCTION

1. The need for a substantive reduction in illiteracy in India is apparent. Although the percentage of the literate adult population has nearly doubled since 1951 rising from approximately 17 per cent to about 30 per cent in 1971, the number of illiterates has increased from 298 million to 386 million during the same period mainly due to inadequate provision for literacy programme and because of growth in population. With this population explosion has come a corresponding need for increased food production—another national priority. Fortunately, the development of new high yielding varieties of food-grains and improved agricultural technology has made this achieveable. This advance in turn requires that farmers have a higher level of technological knowledge and skills. The obtaining of these is made possible only through an effective functional educational programme of demonstration and mass media. The full utility of such a programme can be realised only by the literate.

2. It was with the attainment of the 'Green Revolution' as an objective in mind that the development of the High-yielding Varieties Programme was undertaken. To support this programme, a comprehensive educational effort known as the Farmers' Training and Functional Literacy Project was initiated in 100 selected districts. This Pilot Project, conceived and initiated in 1967, utilised an integrated approach in selected areas with the Ministry of Agriculture responsible for all agricultural demonstration activities and farmers' training, the Ministry of Education and Social Welfare assuming responsibility for establishing Functional Literacy Centres and the Ministry of Information and Broadcasting providing radio support through their farm broadcast units. Two UN agencies,

the Food and Agriculture Organisation and Unesco with financial assistance from the UNDP contributed a very limited amount of expertise, supplies and training assistance.

3. The Functional Literacy Project, as an integral component of the Programme of Farmers' Training and Functional Literacy and conceived of as a part of Unesco World Experimental Literacy Project, has had a rapid expansion since its modest beginning in three districts in 1968. This grew to 10 districts in 1969, 25 in 1970 and the programme is expected to be operating in 60 districts by the end of the 1970-71 financial year. During this period of time, district supervisors and teachers were trained in all the districts where the programme has been operative. Many reading and teaching materials in the regional language have been printed. About 1954 classes have been completed and 2,983 are presently being conducted. Most important of all, 51,304 farmers are reported to have been made literate, while another 64,577 are presently undergoing literacy training. By the end of the Fourth Plan, it is expected to cover about 1 million illiterate farmers under this programme.

II. PURPOSE OF THE STUDY

4. The programme of functional literacy, as an integral part of the programme of Farmers' Training and Functional Literacy, is expected to contribute a great deal to the socio-economic well being of rural India. The broad objectives of the Functional Literacy component, as conceived in the development of the basic programme guidelines are :

(i) To increase the attainment and use of literacy skills ;

(ii) To bring about the socio-economic change on the individual with particular emphasis on changes in agricultural production.

5. In establishing the Farmers' Training and Functional Literacy Project, one of the essential concept was the development of an objective evaluation scheme for programme improvement.

6. This study attempts to determine the extent to which it has been possible to achieve these objectives through a systematic evaluation which was carried out in Lucknow district where the integrated programme of Farmers' Training and Functional Literacy has been in operation since 1968. The study anticipated three major benefits :

(i) Tested procedures and methodology for an expanded evaluation programme ;

(ii) Experience for national level staff in a comprehensive evaluation programme ;

(iii) Preliminary information useful in the guidance of an expanded and more intensive Functional Literacy Programme.

7. The specific objectives of the Pilot Study were to obtain qualitative and quantitative measurements of :

(i) The attainment and use of literacy skills ;

(ii) The impact of the programme on the individual with particular emphasis on changes in agricultural production ;

(iii) The teaching/learning situation.

8. In order to achieve these objectives, a comprehensive study, to measure these accomplishments and change in both purposes of evaluating the programme of functional literacy in Lucknow district was made and the following indicators were developed and used :

I. LITERACY ATTAINMENT

(i) Level of reading ability

(ii) Level of writing ability

(iii) Level of performance in arithmetic

(iv) Degree of comprehension

(v) Degree of application of reading and writing ability

(vi) Number of drop-outs

II. LIVING STANDARD

(vii) Increase in the number of material articles contributing to the standard of living.

III. PROFESSIONAL COMPETENCE

(viii) Knowledge regarding high-yielding varieties of wheat and jwar.

(ix) Adoption of recommended farm practices.

IV. RELATION TOWARDS MEANS OF MASS COMMUNICATION AND PERSONAL SOURCES

(x) Exposure to mass media

(xi) Exposure to personal sources of information

V. ATTITUDE TOWARDS EDUCATION

(xii) Attitude towards adult literacy

VI. SOCIAL PARTICIPATION

(xiii) Participation in formal organisation

III. DESIGN OF THE STUDY

9. In the absence of any socio-economic bench mark Survey conducted prior to the introduction of the Functional Literacy Programme, the design had to be *ex-post-facto* type, using experimental and matched control groups. The experimental group consisted of the respondents who had attended functional literacy classes and control group respondents from the villages where functional literacy programme was not introduced.

SAMPLING PROCEDURE

SELECTION OF VILLAGES

10. From exploratory visits to Lucknow prior to evaluation, it was learnt that the functional literacy programme was conducted in three batches. The first two batches had already completed the functional literacy courses and the current batch was in operation. As such the total number of functional literacy centres (villages) were classified into two categories where all the three batches were conducted and where only the current, *i.e.*, the third batch was in progress. Thus, it was found that

Bakshi-Ka-Talab Block was the only block which had some villages (Functional Literacy Centres) where all the three batches were conducted. The programme of holding the third batch of functional literacy classes was extended to other three blocks also, namely, Sarojini Nagar, Mohanlalganj and Gosainganj. In these three blocks only the third batch was going on. Hence, the following villages were selected on random basis :

Blocks	*Villages/Functional Literacy Centres*
1. Bakshi-ka-Talab	1. Raipur Raja
	2. Kishanpur Karsonda
	3. Daryapur
	4. Behta
	5. Rasulpur Sadat
	6. Murlipur
2. Sarojini Nagar	7. Bhatgaon
	8. Kurauni
3. Mohanlalganj	9. Mastipur
	10. Bhavakhera
4. Gosainganj	11. Ghuskar
	12. Bakkas

SELECTION OF RESPONDENTS

A. EXPERIMENTAL GROUP

11. The selection of respondents from the three batches was done randomly. From each batch, an equal number of respondents (80) was selected as shown in the table on the following page :

Distribution of Respondents from different Blocks

S.No.	Batch No.	Blocks				
		Bakshi-ka-Talab	Sarojini Nagar	Mohan-lalganj	Gosain ganj	Total
1.	I	80	—	—	—	80
2.	II	80	—	—	—	80
3.	III	20	20	20	20	80
Total		180	20	20	20	240

B. CONTROL GROUP

12. Four villages, one from each block, where the programme of functional literacy was not introduced were selected as control villages. They were matched with experimental group on geographic, socio-demographic and agricultural production basis.

13. From each of the four selected villages a sample of 20 respondents was selected. These respondents were selected after having group-matching with the respondents in the experimental group on the following variables :

(i) Age

(ii) Land-holding

14. All the respondents in this group were illiterate. The following table gives the number of villages and respondents in the control group :

S.No.	*Blocks*	*Villages*	*No. of Respondents*
1.	Bakshi-ka-Talab	Marpa Madhopur	20
2.	Sarojini Nagar	Kishunpur Kauria	20
3.	Mohanlalganj	Berisalpur	20
4.	Gosainganj	Mohra Khurd	20
	Total	4	80

15. A brief description of the villages involved and the respondents' background will provide a broad overview of the social milieu and community structure of the study area. This has been discussed under the following heads :

1. Description of the villages
2. Background of the respondents
   (i) Age
   (ii) Primary and secondary occupation
   (iii) Land holding

1. Description of the Villages

(i) POPULATION

16. The villages in the experimental and control groups were of varying sizes. As many as five villages in experimental and one in control were big villages as their population ranged between two to four thousand. Three villages in experimental group and two in control group were medium sized villages, their population falling in the category of 1000-2000 persons. Four villages in experimental and one in control could be termed as small villages, their population being below 1000 persons.

(ii) DISTANCE FROM BLOCK HEADQUARTERS

17. The distances of the villages in experimental and control groups from respective block headquarters varied. While six

villages were nearest to block headquarters (the distance ranging between 5-9 kms.) as many as two villages were situated as far as 20 and 22 kms. they being the farthest villages from block headquarters. The other villages were divided equally in the ranges of 10-14 and 15-19 kms.

(iii) CONNECTION BY METALLED ROADS

18. Three out of twelve experimental villages and one out of four control villages were located on the main metalled road. The rest of the villages were located in the interior and were connected by approach roads which were *kaccha*.

(iv) EDUCATIONAL INSTITUTIONS IN THE VILLAGES

19. In all except two of the experimental villages, the facilities for the education of children were available. In ten villages at least one primary school for boys existed. In four villages this facility was available for girls too. Two villages had more than one primary school for boys. There was only one village where the opportunity for boys to attend a middle school was available. Two of the control villages had primary school for boys.

(v) FARMERS' DISCUSSION GROUPS

20. In ten of the experimental villages, the farmers' discussion groups existed. The information in this regard from control group was not available.

(vi) CROPPING PATTERN

21. By and large the cropping pattern in the experimental and control group villages was almost similar.

2. Background of the Respondent

SAMPLE POPULATION

22. A brief description of the respondents' background, their demographic and socio-economic characteristics is given here to enable the reader to relate the broad trends brought out by the evaluation with the social milieu and community structure obtaining in the Lucknow district. Table 1 gives the distribution of respondents by age-groups.

Table 1

Distribution of the Respondents by Age-group

S. No.	Age Group	Experimental Group: Batch I	Batch II	Batch III	Total	Control Group
1.	15—25	37 (46)	38 (48)	35 (44)	110 (46)	37 (46)
2.	25—35	35 (44)	26 (32)	28 (35)	89 (37)	29 (36)
3.	35—45	7 (9)	12 (15)	13 (16)	32 (13)	10 (13)
4.	45+	1 (1)	4 (5)	4 (5)	9 (4)	4 (5)
	Total :	80 (100)	80 (100)	80 (100)	240 (100)	80 (100)

Figures in parenthesis denote percentages

23. The sample participants both from experimental and control group belonged to the younger age-group.

24. The occupation of the respondents was classified into primary and secondary. Primary means the occupation from which the major income is coming Secondary is one which is subsidiary and supplementary to the main occupation.

Table 2

Distribution of Respondents by Occupations
(Primary and Secondary)

S. No.	Occupation	Experimental Group								Control Group	
		Primary				Secondary				Primary	Secondary
		Batch I	Batch II	Batch III	Total	Batch I	Batch II	Batch III	Total		
1.	Farming	78	76	70	224	1	3	7	11	68	8
		(98)	(95)	(88)	(94)	(3)	(8)	(12)	(8)	(85)	(15)
2.	Farm-Labour	1	1	4	6	23	24	32	79	4	30
		(1)	(1)	(5)	(2)	(72)	(60)	(55)	(61)	(5)	(57)
3.	Any other	1	3	6	10	8	13	19	40	8	15
		(1)	(6)	(7)	(4)	(25)	(32)	(33)	(31)	(10)	(28)
	Total :	80	80	80	240	32	40	58	130	80	53
		(100)	(100)	(100)	(100)	(40)	(50)	(72)	(54)	(100)	(66)

Figures in parenthesis denote percentages.

25. Majority of the respondents had primary occupation as farming and secondary occupation as farm labour. Only a few were doing work other than farming as their secondary occupation.

Table 3

Distribution of Respondents by Size of Land Holdings

S. No.	Land Holdings	Experimental Group				Control Group
		Batch I	Batch II	Batch III	Total	
1.	Landless	1 (1)	1 (1)	3 (4)	5 (2)	3 (4)
2.	Below one acre	2 (2)	5 (6)	10 (12)	17 (7)	11 (14)
3.	1-2 acres	13 (16)	15 (18)	16 (20)	44 (18)	20 (25)
4.	2-3 acres	19 (24)	14 (18)	18 (22)	51 (21)	18 (22)
5.	3-4 acres	20 (25)	14 (18)	9 (11)	43 (18)	6 (8)
6.	4-5 acres	7 (9)	12 (15)	9 (11)	28 (12)	6 (8)
7.	5 acres and above	18 (23)	19 (23)	15 (19)	52 (22)	16 (20)
	Total	80 (100)	80 (100)	80 (100)	240 (100)	80 (100)

Figures in parenthesis denote percentages

26. Most of the respondents were farmers and a very few number was of landless labourers. It is noteworthy that from all the three batches the majority of the respondents belonged to small land holders. It indicates that literacy is attracting farmers with small land holdings.

III. Tools for data collection

27. To measure the indicators discussed earlier the following tools were developed and used for data collection purposes in the evaluation :

a. *Schedules* : Three sets of schedules were devised to collect the data from the (i) participants of functional literacy programme*, (ii) teachers of the functional literacy classes, and (iii) villages/functional literacy centres. The first two sets of schedules were pre-tested and finalised before being administered to the participants and teachers in interview situation. The data for the villages was collected through block extension staff. Excepting the second schedule, the other two were administered to the farmers in experimental and control groups.

b. *Literacy Tests* : Five tests were prepared to judge the level of attainment by the participants in functional literacy courses.

(i) *Reading test* : Two simple passages of 25 and 27 words were prepared to examine their reading ability. Based on these passages were a few multiple choice questions to judge their comprehension.

(ii) *Writing test* : The respondents were given a test in taking a dictation of 25/27 words.

(iii) *Transcription test* : Those respondents who could not take dictation or other tests, were asked to copy a simple passage of 25/28 words.

(iv) *Arithmetic test* : In order to judge the calculating ability of the adults in functional literacy classes,

*Schedule for the participants of functional literacy is appended at the end.

a test was developed consisting of ten questions on addition, subtraction, multiplication and division.

(v) *Exercise in filling a farm plan :* For the purpose of finding out the extent to which the participants used their literacy skills, a simple farm plan was prepared which the respondents were asked to fill in.

The above tests were administered to all the respondents in the sample from experimental group.

IV. FINDINGS OF THE STUDY

28. The findings of the study are presented in the light of their significance under the following sub-headings :

a. Literacy attainments of the participants
b. The impact of functional literacy on agricultural production
c. Changes in the attitudes of the respondents towards adult literacy
d. Impact of functional literacy on material possessions of the respondents
e. Contact of the respondents with extension agency
f. Exposure of the respondents to mass media
g. Social participation of the respondents
h. Teaching-learning situation.

a. LITERACY ATTAINMENTS OF THE PARTICIPANTS

29. This study sought to determine the level of reading and writing skills attained by the adults who were made functionally literate. It also sought to determine their abilities in solving simple mathematical problems and in preparing farm plans.

30. For this purpose different tests based on the syllabi in reading, writing and arithmetic and the standard of literacy expected to be achieved through these were administered. The description of these tests has been given earlier under the head 'tools of data collection'. The results are discussed below :

a. READING TEST

Table 4

Words Read Correctly

S. No.	*Batch No.*	*Respondents who could take test*	*Total No. of words in passages*	*Total No. of words read correctly*	*Percentage of words read correctly (Mean score)*
1.	I	75 (94)	1939	1849	95
2.	II	71 (89)	1835	1735	94
3.	III	72 (90)	1870	1704	91

Figures in parenthesis denote percentages.

31. Among the respondents who could manage the reading test, the average percentage of words read correctly for all the three batches ranged between 91% and 95%. These respondents committed on an average 1.2, 1·4 and 2.3 mistakes in the three batches. This shows that as far as reading is concerned, respondents could do reasonably well in all the three batches and had acquired at least the minimum reading skills.

Table 5

Average Reading Speed of the Respondents

S. No.	*Batch No.*	*Average reading speed (per minute)*
1.	I	18
2.	II	22
3.	III	16
Total		19

32. The average speed per minute was approximately 17.8, 22.1 and 18.4 words in Batch I. II and III, respectively. However some respondents read with a speed of more than 50 words per minute. Further details in this respect are given below :

Table 6

Words Read Correctly by the Respondents (per minute)

S. No.	*Words read correctly per minute*	*Batch I*	*Batch II*	*Batch III*	*Total*
1.	0	5 (6)	9 (12)	8 (10)	22 (9)
2.	Below 10	9 (12)	5 (6)	14 (18)	28 (12)
3.	10-20	19 (23)	15 (19)	17 (21)	50 (21)
4.	20-30	17 (21)	26 (33)	18 (23)	61 (26)
5.	30-40	10 (12)	12 (15)	11 (14)	33 (14)
6.	40-50	5 (6)	6 (8)	4 (5)	15 (6)
7.	50-60	5 (6)	2 (2)	5 (6)	12 (5)
8.	60-70	4 (5)	2 (2)	—	6 (2)
9.	70-80	3 (4)	1 (1)	2 (2)	6 (2)
10.	80-90	1 (1)	1 (1)	1 (1)	3 (1)
11.	90-100	3 (4)	1 (1)	—	4 (2)

Figures in parenthesis denote percentages.

33. Approximately 20%, 9%, and 10% of the respondents, in Batches I, II and III respectively could read the test passage with a speed of 30 words and above per minute. A significant portion of the respondents, *i.e.*, 21.3%, 32.5% and 22.3% in Batches I, II and III respectively, could read with a speed varying from 20 to 30 words per minute.

b. COMPREHENSION TEST

34. The comprehension test was administered to the respondents who could take the test passage for reading. The test was of multiple choice type and based on the contents included in the passage given for reading. The average comprehension scores obtained by the respondents are shown in the Table below

Table 7

Comprehension Scores of the Respondents

S. No.	*Batch No.*	*Respondents who could take the test*	*Average comprehension score*
1.	I	75 (94)	2.24
2.	II	71 (89)	2.08
3.	III	72 (90)	1.96

Figures in parenthesis denote percentages.
Maximum score=3

35. Table 7 reveals that the average comprehension scores of the respondents were 2.24, 2.08, and 1.96 in Batches I, II III, respectively.

c. WRITING SKILL

36. Each respondent was dictated a short passage for writing. Table 8 gives details on writing speed.

Table 8

Number of Words Written Correctly

S. No.	*No. of words written correctly per minute*	*Batch I*	*Batch II*	*Batch III*
1.	0	16 (20)	18 (23)	23 (29)
2.	Below 2	16 (20)	4 (5)	18 (23)
3.	2—4	21 (26)	28 (35)	26 (32)
4.	4—6	8 (10)	18 (22)	9 (11)
5.	6—8	10 (13)	8 (10)	4 (5)
6.	8—10	5 (6)	3 (4)	—
7.	10 plus	4 (5)	1 (1)	—

Figures in parenthesis denote percentages.

37. It may be seen that 80.00% in Batch I, 77.50% in Batch II, and 71.25% in Batch III could take the dictation. From the above Table it may also be seen that as many as 60.00% in Batch I, 72.5% in Batch II, and 48.75% in Batch III had a writing speed of 2 or more words per minute. Table 9 further shows the average writing speed in terms of words written correctly (per minute).

Table 9
Average Writing Speed of the Respondents

S. No.	*Batch No.*	*Respondents who could take dictation*	*No. of words written*	*No. of mistakes committed*	*No. of words written correctly*	*Total time taken in writing (in minutes)*	*Average speed (per minute)*
1.	I	64 (80)	1676	249	1427	493.4	2.9
2.	II	62 (78)	1622	202	1420	416.1	3.4
3.	III	57 (71)	1489	267	1222	528·5	2.3

Figures in parenthesis denote percentages.

38. The speed per minute was 2.9, 3.4, 2.3 words for Batches I, II, and III, respectively. The earlier Table revealed that the highest percentage of the respondents *viz.*, 26.25% in Batch I, 35.00% in Batch II and 32.5% in Batch III fell in the group of 2-4 words where the mean is situated. Again 33.75% in Batch I, 37.5% in Batch II and 16.25% in Batch III were able to write with a speed exceeding four words. However, more than one fourth of the sample population could not write any word.

d. TRANSCRIPTION TEST

39. Those respondents who could not take dictation were asked to transcribe a passage. Result of this transcription test is given in Table 10.

Table 10

Result of Transcription Test

S. No.	*Batch No.*	*Respondents who took the test*	*Respondents who could transcribe*
1.	I	16 (20)	15 (94)
2.	II	18 (23)	12 (67)
3.	III	23 (29)	19 (83)

Figures in parenthesis denote percentages.

40. 20.00%, 22.5% and 28.8% in Batches I, II and III respectively were given transcription exercise. However, as many as 93.75% in Batch I, 66.67% in Batch II and 82.61% respondents in Batch III could copy reasonably well as is evident from the above Table.

e. USE OF LITERACY

41. The respondents were asked to fill up a simple Farm Plan form in which some details about agriculture were to be completed by them. The aim was to judge the ability of the adults to put literacy to use. With a few exceptions, the investigators had to explain the items to be filled in. Table 11 shows the mean score obtained by the respondents out of maximum score of 14 based on the number of items in the Farm Plan form.

Table 11

Average Time Taken and Average Scores Obtained in Completing the Farm Plan

S. No.	*Batch No.*	*Respondents who attempted the test*	*Total time taken by respondents (in mts.)*	*Average time taken (in mts.)*	*Average score obtained (maximum score 14)*
1.	I	74 (93)	1522	21	10
2.	II	70 (88)	1183	17	9
3.	III	71 (89)	1390	20	8

Figures in parenthesis denote percentages.

42. A portion of the respondents in the three batches could not fill in the form. However, with guidance a good majority of respondents could fill in the forms. They accounted for 92.50, 87.50 and 88.75 per cent of the respondents. The average scores were 9.59, 8.94 and 7.93 in Batches I, II, and III, respectively. The average time taken in filling up the form differed from batch to batch.

43. A careful examination of Table 12 will show that as many as 81.25%, 70.00% and 63.75% respondents in Batches I, II and III obtained scores above 6 (out of 14) which comes to 43% of the maximum score.

Table 12

Distribution of Scores Obtained in the Exercise on Farm Plan

S. No.	*Distribution of Scores obtained*	*Batch I*	*Batch II*	*Batch III*
1.	Zero (could not fill)	6 (7)	10 (12)	9 (11)
2.	up to 2	1 (1)	6 (8)	10 (13)
3.	2 to 4	3 (4)	5 (6)	6 (8)
4.	4 to 6	5 (6)	3 (4)	4 (5)
5.	6 to 8	9 (11)	6 (8)	9 (11)
6.	8 to 10	14 (18)	11 (14)	8 (10)
7.	10 to 12	14 (18)	16 (20)	17 (21)
8.	12 to 14	28 (35)	23 (28)	17 (21)

Figures in parenthesis denote percentages.

f. ARITHMETIC TEST

44. To determine the arithmetical capability of the participants in the functional literacy programme a test comprising of ten problems was administered and each problem carried equal score with a maximum score of 100. No time limit was set. However, the time taken by the respondents in solving the test was noted for each respondent. Results of this Test are given in Table 13.

Table 13

Mean Scores in Arithmetic Test

S. No.	*Batch*	*Respondents who took the test*	*Mean Scores*
1.	I	64 (80)	66
2.	II	62 (78)	73
3.	III	60 (75)	61

Figures in parenthesis denote percentages.

45. 80%, 77·5% and 75.00% of the respondents in Batches I, II and III, respectively could solve the problems in the arithmetic test. In other words, a little more than 1/5th of the sample population did not show any achievement in arithmetic. The mean scores in Batches I, II and III were 65.78, 72.58 and 61.33, respectively. Distribution of these scores is shown in Table 14.

Table 14
Distribution of Scores in Arithmetic Test

S. No.	*Scores obtained*	*Batch I*	*Batch II*	*Batch III*
1.	Zero	16 (20)	38 (22)	20 (25)
2.	Up to 10	2 (2)	2 (2)	2 (2)
3.	11—20	2 (2)	3 (4)	3 (4)
4.	21—30	5 (7)	2 (2)	3 (4)
5.	31—40	3 (4)	3 (4)	3 (4)
6.	41—50	7 (9)	3 (4)	10 (12)
7.	51—60	7 (9)	5 (6)	8 (10)
8.	61—70	9 (11)	6 (8)	14 (17)
9.	71—80	9 (11)	12 (15)	6 (8)
10.	81—90	11 (14)	11 (14)	7 (9)
11.	91—100	9 (11)	15 (19)	4 (5)

Figures in parenthesis denote percentages.

46. Majority of the participants obtained scores above 50 out of a total score of hundred. They followed proper mathematical procedures while others could solve only simplest problems in addition and subtraction and that also orally.

Table 15

Summary Statement on Literacy Attainments of the Respondents

S. No.	*Test*	*Batch No.*	*Percentage of the respondents who took the test*	*performance*	*Remarks*
1.	Reading	I	94	18	average
		II	89	22	speed per
		III	90	13	minute
2.	Comprehension	I	94	2	average
		II	89	2	score
		III	90	2	(Max. 3)
3.	Dictation	I	80	2	average
		II	78	3	speed per
		III	71	2	minute
4.	Farm Plan	I	93	10	mean
		II	88	9	score
		III	89	8	(Max. 14)
5.	Arithmetic	I	80	66	mean
		II	78	73	score
		III	76	61	(Max. 100)

47. A substantial percentage of the respondents did not achieve a satisfactory level of literacy as shown by the percentages of respondents who could attempt the tests.

48. A look at the scores indicates that in the reading capabilities the objectives set forth in the syllabi were not fully met. However, the performence in reading for Batches I and II are sufficiently close to the objectives expected, so there need to be no cause for concern. The mean scores constitute, in general, more than half of the maximum scores indicating that the vast majority of the participants had acquired some useful literacy skills and to that extent the findings are encouraging.

g. Age and Literacy Achievements

49. The attainments by the adults in the functional literacy classes were studied in relation to their age distribution. The sample population was divided into three age groups *viz.*, 15-25, 25-34 and 35-45. The literacy achievements of individual respondents were scored and classified into high, medium and low performance according to the age-group to which they belonged.

Table 16

Age and Literacy Achievements

S. No.	*Age groups*	*Literacy Achievements*		
		High	*Medium*	*Low*
1.	15–25 n=110	75	26	11
2.	25–35 n=39	57	24	8
3.	35–45 n=41	17	16	8

x^2=10.29 ; df=4

* Significant at 5% level

50. The age of the participants in functional literacy programme was inversely related to their literacy attainments. In other words, participants of younger age-group fared better in literacy tests as compared to those in older age-group. It might be due to low retention of power at advanced age or poor motivation to learn and weak interest in functional litaracy work.

B. Impact of Functional Literacy on Agricultural Production

51. An attempt was made here to determine the degree to which functional literacy was associated with the respondents' knowledge about agricultural innovations ; whether its acquisition influenced adoption behaviour and whether it was instrumental in changing their attitudes and level of material possessions. Association of literacy and its influence on contacts with extension agencies and exposure to radio were also studied. These impact variables of experimental group were studied batchwise and results were compared with control group. The findings are briefly discussed below :

(*a*) FUNCTIONAL LITERACY AND KNOWLEDGE OF AGRICULTURAL INNOVATION :*

1. Wheat : Table 17 gives an account of the mean scores of different batches of experimental group and control group.

*The experimental (Batch I, II and III) and control groups were tested for knowledge of HYV of wheat and jwar crops. The tests were prepared on the basis of information given in the first book and other supplementary KSV books. The results obtained provide some interesting comparisons.

Table 17

Knowledge relating to HYV of Wheat in Experimental and Control Group

S. No.	*Batch No. vs. control*	*Item*	*Mean score of knowledge*	*S.E. of mean difference*	*'t' Value*
1.	I Vs. Control	Knowledge of Experimental Group (Batch I)	13.7	0.70	9.64*
		Knowledge of Control Group	6.95		
		Difference in Knowledge	6.75		
2.	II Vs. Control	Knowledge of Experimental Group (Batch II)	13.46	0.58	11.28*
		Knowledge of Control Group	6.95		
		Difference in Knowledge	6.54		
3.	III Vs. Control	Knowledge of Experimental Group (Batch III)	11.26	0.58	8.29*
		Knowledge of Control Group	6.95		
		Difference in Knowledge	4.31		
4.	I & II Vs. III	Knowledge of (Batch I & II)	13.58	0.56	4.11**
		Knowledge of (Batch III)	11.26		
		Difference in Knowledge	2.32		

*Significant at 1% level, df=158

**Significant at 1% level, df=238

52. It was found that in all the three situations the 't' value was significant at 1% level, thus showing that the experimental group respondents had more knowledge about the HYV of wheat and related agricultural practices than the control group respondents. It could, therefore, be inferred that acquisition of functional literacy helped them in acquiring a higher level of knowledge on agricultural matters.

53. The differences in the knowledge scores of the respondents were also compared within the experimental group *i.e.*, Batches I and II against Batch III. It was found that respondents of batches I and II had comparatively higher knowledge about HYV of wheat and its related practices than the batch III and the difference was significant at 1% level as revealed by an application of 't' test. This may indicate that the acquisition of functional literacy creates a desire for more knowledge and since the respondents of Batches I and II had acquired functional literacy earlier they had the opportunity to become better informed on agricultural matters.

54. An effort was further made to determine the association of literacy with scores of knowledge in HYV of wheat practices. The respondents were classified according to their literacy ability and corresponding scores in knowledge test in three categories *viz.*, high, medium and low.

Table 18

Literacy and Knowledge of HYV of Wheat

S. No.	Literacy ability	Knowledge of HYV of wheat		
		High	*Medium*	*Low*
1.	High (n=147)	23	111	13
2.	Medium (n=66)	2	53	11
3.	Low (n=27)	1	18	8

x^2=9.41* df=2

*Significant at 1% level

55. Literacy achievements and the knowledge of high yielding varieties of wheat and its related practices had a direct relationship. In other words, higher the achievements in literacy, greater the knowledge of wheat (HYV) and its related practices.

JWAR :

56. The mean knowledges cores on agricultural practices for jwar crop of the experimental and the control group respondents were compared and the differences between Batches I, II and III and control group were found to be significant at 1% level when 't' test was applied. Table No. 19 presents details in this regard.

Table 19

Knowledge relating to HYV of Jwar in Experimental and Control Group

S. No.	*Batch Vs.*	*Item*	*Mean score of knowledge*	*S.E. of mean difference*	*'t' Value*
1.	I Vs. Control	Knowledge of Experimental Group (Batch I)	1.48	0.38	3.44*
		Knowledge of Control Group	0.17		
		Difference in Knowledge	1.31		
2.	II Vs. Control	Knowledge of Experimental Group (Batch II)	1.812	0.39	4.19*
		Knowledge of Control Group	0.175		
		Difference in Knowledge	1.637		
3.	III Vs. Control	Knowledge of Experimental Group (Batch III)	1.487	0.35	3.71*
		Knowledge of Control Group	0.175		
		Difference in Knowledge	1.312		
		*Significant at 1% level df=158			
4.	I & II Vs. III	Knowledge of Batch I & II	1.65	0.435	0.374 N.S.
		Knowledge of Batch III	1.487		
		Difference in Knowledge	0.163		
		N.S.=Not significant df=238			

57. The mean scores for the three batches were very low (*viz.*, 1.480, 1.812 and 1.487 for Batches I, II and III, respectively out of a maximum score of 26. This indicates that though the average level of knowledge about jwar was low, yet it was significantly higher than the control group. It may be inferred that respondents, though they get information about HYV of jwar in functional literacy classes, did not find it worthwhile since it was not a crop of importance to them. This inference is further supported by the fact that no significant difference in the knowledge score of Batches I, II and III was found when 't' test was applied. In wheat, however, such a difference was brought out.

(*b*) FUNCTIONAL LITERACY AND ADOPTION OF AGRICULTURAL INNOVATIONS

The adoption process for the four improved practices (*viz.*, seeds, fertilizers, implements and insecticides for wheat and jwar crops was studied in the experimental and control group. The respondents indicated their awareness, interest, trial and adoption levels by answering the questions about each of the four practices.

Table 20

Adoption Process for Innovations relating to High Yielding Varieties of Wheat

S. No.	Innovation relating to HYV of Wheat	Batch	Adoption stages			
			Awareness	Interest	Trial	Adoption
1.	Seed	I	80(100)	75(94)	71(89)	76(95)
		II	79(99)	74(93)	74(93)	75(94)
		III	66(83)	51(64)	47(59)	45(56)
		C	62(78)	37(46)	34(43)	40(50)
2.	Fertilizers	I	77(96)	69(86)	67(84)	69(86)
		II	79(99)	73(91)	70(88)	69(86)
		III	59(74)	49(61)	42(53)	41(51)
		C	47(86)	31(39)	20(25)	20(25)
3.	Implements	I	50(63)	43(54)	36(45)	35(44)
		II	42(53)	34(43)	32(40)	32(40)
		III	38(48)	27(34)	24(30)	17(21)
		C	30(38)	10(13)	8(10)	7(9)
4.	Insecticides	I	60(75)	40(50)	38(48)	28(35)
		II	49(61)	35(44)	35(44)	33(41)
		III	43(54)	24(30)	18(23)	18(23)
		C	18(22)	9(11)	7(9)	7(9)

Figures in parenthesis denote percentages.
C=Control Group

58. A larger number of respondents were aware of seeds for HYV of wheat in all the three batches as compared to only 77.75% of the respondents in the control group. Similarly, at interest, trial and adoption stages and also regarding other practices the same trend was observed.

59. In comparing the adoption process within the three batches of the experimental group, it is seen from the Table that while the results obtained in Batches I and II are very similar, there is little similarity of the data in Batch III. It may be due to the same time factors that were discussed earlier.

(c) LITERACY ABILITY AND ADOPTION OF WHEAT PRACTICES

Adoption of wheat practices was further studied in relation to literacy ability.

Table 21

Adoption of Innovations and Literacy Ability

S. No.	*Literacy ability*	*Seeds*	*Fertilizers*	*Implements*	*Insecticides*
1.	High n=147	133 (90)	128 (87)	58 (67)	63 (43)
2.	Medium n=66	54 (82)	50 (76)	24 (36)	17 (26)
3.	Low n=27	20 (74)	18 (70)	9 (33)	8 (30)
4.	Total n=240	207 (86)	197 (182)	91 (38)	88 (37)

Figures in parenthesis denote percentages.

The figures in Table 21 show that higher the literacy ability, higher the adoption of new seeds, fertilizers, implements and insecticides.

Table 22

Adoption Process of Innovations for HYV of Jwar and related Practices

S. No.	*Innovations for HYV of Jwar*	*Batches*	*Awareness*	*Interest*	*Trial*	*Adoption*
1.	Seeds	I	20(25)	13(16)	6(8)	5(6)
		II	23(29)	10(13)	8(10)	5(6)
		III	18(22)	12(15)	8(10)	8(10)
		C	2(3)	1(1)	1(1)	1(1)
2.	Fertilizers	I	7(9)	6(8)	5(6)	2(3)
		II	10(13)	6(8)	6(8)	5(6)
		III	9(11)	7(9)	7(9)	8(10)
		C	1(1)	1(1)	1(1)	1(1)
3.	Implements	I	6(8)	6(8)	6(8)	5(6)
		II	7(9)	6(8)	6(8)	7(9)
		III	6(8)	4(5)	3(4)	3(4)
		C	1(1)	1(1)	1(1)	1(1)
4.	Insecticides	I	3(4)	2(3)	2(3)	2(3)
		II	5(6)	4(5)	5(6)	4(5)
		III	3(4)	2(3)	2(3)	2(3)
		C	1(1)	1(1)	1(1)	1(1)

C=Control Group
Figures in parenthesis denote percentages

60. Although the general behaviour relating to adoption of the four practices, *viz.*, seeds, fertilizers, implements and insecticides (at all four stages *viz.*, awareness, interest, trial and adoption) remained rather low in experimental group, it nevertheless was higher than the control group.

61. On the other hand in control group except for the awareness of HYV of Jwar seed, for no other practice did the res-

pondent's percentage exceed 1.5 at any of the adoption stages. In experimental group, however, the lowest percentage of respondents is 2.50 at any stage of adoption.

62. The experimental groups, though not scoring very high in adoption, fared much better than the control group. It may, therefore, be inferred that functional literacy has a role in inducing the people to adopt new innovations in agriculture and in changing their adoption behaviour.

C. Change in the Attitude of the Respondents towards Adult Literacy

63. The present evaluative study also attempted to determine whether the acquisition of functional literacy by the farming community reflected a change in their attitudes towards adult literacy and in their habits with regard to possession of items of material interest. The findings are presented here.

Attitude Towards Adult Literacy

The respondents in the experimental and control group were given a set of statements having bearing on adult literacy with which they had to indicate their agreement, disagreement or show their indecisiveness.

Table 23

Attitude towards Adult Literacy

S. No.	*Batch No.*	*Item*	*Mean score of attitude*	*S. E. Mean difference*	*'t' value*
1.	I Vs. Control	Attitude of Experimental Group (Batch I).	7.13	0.252	5.833*
		Attitude of Control Group	5.66		
		Difference in Attitude	1.47		
2.	II Vs. Control	Attitude of Experimental Group (Batch II)	7.40	0.371	4.69*
		Attitude of Control Group	5.66		
		Difference in Attitude	1.74		
3.	III Vs. Control	Attitude of Experimental Group (Batch III)	7.38	0.401	4.28*
		Attitude of Control Group	5.66		
		Difference in Attitude	1.72		
		*Significant at 1% level df = 158			
4.	I & II Vs. III	Attitude of Experimental Group (Batch I & II)	7.26	0.19	0.631
		Attitude of III Batch	7.38		N.S.
		Difference in Attitude	0.12		
		N.S. = Not significant df = 238			

64. The mean scores in the three batches were significantly higher when compared with the control group. The 't' value in all the three cases was significant at 1% level. This indicates that functional literacy programme has made a positive impact on the respondents in moulding their attitudes towards adult literacy programme. It may also be inferred that the participants in the functional literacy programme had a better realisation of the utility of literacy in farming as compared to the control group.

65. The mean attitude scores of the respondents within experimental group did not show any significant difference as they were very similar. This indicates that within the experimental group there was a relatively uniform impact of functional literacy as far as changes in attitude towards adult literacy are concerned.

66. Though the above comparisons between the experimental and control group respondents established the relationship of functional literacy in making their attitudes favourable towards adult literacy and education, it was not known how far the achievements in literacy affected them. In order to find out the correlation between high/low literacy ability with extent of favourable/unfavourable attitudes the respondents were classified accordingly.

Table 24

Literacy Ability and Attitude towards Adult Literacy

S. No.	*Literacy Ability*	*Attitude towards adult literacy*		
		Favourable	*Some what favourable*	*Not favourable*
1.	High (n=147)	120	8	—
2.	Medium (n=66)	60	6	—
3.	Low (n=27)	24	3	—

$x^2 = 1.68$ Not Significant.

67. The attitudes of the respondents towards adult literacy and education programme were not in any way affected by good or poor achievements in literacy.

D. Impact of Functional Literacy on Material Possessions

68. An attempt was made to determine the extent to which the acquisition of functional literacy affected the material possessions of the respondents. For this purpose the differences in the mean scores for material possession obtained by the experimental and control group respondents were compared.

Table 25

Material Possession of Experimental Group Vs. Control Group

S. No.	*Item*	*Mean score of material possession*	*S.E. of mean difference*	*'t' value*
1.	Material possession of Experimental Group (I+II+III Batches)	3.90	0.35	4.623*
2.	Material possession of Control Group	2.28		
3.	Difference in Material Possession	1.62		

*Significant at 1% level
df 318

69. An inference may be drawn that the acquisition of functional literacy affected the living habits of the people since literate persons possessed more items of material comfort than the illiterates in the control group.

E. Contact of the Respondents with Extension Agencies

70. With a view to determine the degree to which functional literacy promoted the respondents' contact with extension people, questions were asked as to how often during the past one year they discussed the agricultural matters with VLW, ADO, BDO, officers of Farmers' Training Centres and other officers of agriculture department.

Table 26

Respondents' Contact with Extension Agencies

S. No.	Extension Agency	Group	Frequency of contact		
			Rarely	Often	Total
1.	V.L.W.	Exp.	29 (31)	58 (61)	87 (92)
		Cont.	6 (42)	6 (50)	11 (92)
2.	A.D.O.	Exp.	—	1 (1)	1 (1)
		Cont.	—	—	—
3.	B.D.O.	Exp.	3 (3)	2 (2)	5 (5)
		Cont.	1 (8)	—	1 (8)
4.	Officers of Farmers' Training Centres	Exp.	1 (1)	—	1 (1)
		Cont.	—	—	—
5.	Other Agriculture Officers	Exp.	1 (1)	—	1 (1)
		Cont.	—	—	—
	Total	Exp.	34 (36)	61 (64)	95 (100)
		Cont.	6 (50)	6 (50)	12 (100)

Figures in parenthesis denote percentages.

N.B. 95/240 = 40% in experimental group and
12/80 = 15% in control group contacted the extension staff.

71. It is observed that with the acquisition of functional literacy the respondents got interested in getting further information on agricultural matters and hence they contacted the extension people.

72. The respondents were also asked to indicate how frequently during the last year they contacted the extension staff. Responses indicated that out of those who contacted extension staff 64.21% in experimental group and 50% in control group discussed agricultural matters often during the last year. Of the total contacts with staff in both the groups the VLW was contacted by majority of the respondents.

73. An effort was further made to see how far the information given by these officers was adequate. It was found out of extension officials, as many as 90.52% got adequate and timely information, in experimental group as compared to 33.34% (adequate) and 66.67% (timely) in control group.

F. Exposure of the Respondents to Mass Media

a. RADIO

The respondents in the experimental and control groups were asked whether they listened to radio and if so, what programmes and how frequently. On the basis of responses obtained, it was intended that relationship of functional literacy with mass media (radio) exposure could be established. Table 27 summarises the findings.

Table 27

Exposure to Radio

S.No.	Frequency of listening to Radio	Group	Programmes: Agril. prog.	Recreational programmes	General programmes	Total
1.	Upto 2 days/week	Exp.	27 (38)	27 (29)	30 (38)	84 (59)
		Cont.	4 (57)	9 (50)	7 (64)	20 (71)
2.	3-4 days/ week	Exp.	29 (40)	32 (34)	20 (26)	81 (57)
		Cont.	1 (14)	5 (28)	3 (27)	9 (32)
3.	4-5 days/ week	Exp.	9 (13)	12 (13)	7 (9)	28 (19)
		Cont.	1 (14)	2 (11)	—	3 (11)
4.	Daily	Exp.	7 (10)	22 (24)	21 (27)	50 (35)
		Cont.	1 (14)	2 (11)	1 (9)	4 (14)
	Total	Exp.	72 (50)	95 (65)	78 (55)	143 (170)*
		Cont.	7 (25)	18 (64)	11 (39)	28 (128)*

Figures in parenthesis denote percentages.

* Percentages exceed 100 because some of the respondents heard more than one programme.

N.B. Total listeners in experimental group were 143 viz., 60% and in control group 28 viz., 35% of the total respondents in each group.

74. It is clear from the preceding Table that functional literacy has a positive relationship with the respondents' exposure to mass media (radio) since exposure in experimental group was higher than in control group. In the experimental group 59.58% of the respondents listened to radio as compared to only 35.00% in the control group. The programme-interests of the respondents in both the groups, however, were found to be similar since the majority listened to recreational programmes. The frequency of listening to various programmes has been rather low as a large proportion in experimental and control groups listened up to two days a week (58.74% and 71.42% respectively). Those who listened up to 4 days a week were more in experimental than in control group (56.64% and 32.14%, respectively.

b. NEWSPAPER

The respondents were further asked to indicate their interest in reading newspapers. Their interests have again been classified according to their literacy achievements. Table 28 gives an account of the respondent's literacy ability and their interest in reading newspapers.

Table 28
Literacy Ability and Interest in Reading Newspaper

S. No.	*Literacy Ability*	*Frequency of reading newspaper in a week days*			
		1-2	3-4	5 & above	Total
1.	High n=147	24 (16)	5 (3)	5 (3)	34 (23)
2.	Medium n=66	4 (6)	—	1 (2)	5 (8)
3.	Low n=27	1 (4)	—	—	1 (4)
	Total n=240	29 (12)	5 (2)	6 (3)	40 (17)

Figures in parenthesis denote percentages.

75. Participants who were classified as 'high' on the basis of literacy achievements, 34 (23.13%) had a tendencey to read the newspaper, 24 (16.33%) read newspaper either occasionally or once in a week and only 5 (3.40%) used to read newspaper either daily or most of the days in a week. The participants who have been classified in category 'Medium' or 'Low' had very little tendency to read newspaper. It may be established that those whose literacy ability was high had more tendency to read newspaper as compared to those who had low level of literacy.

G. Social Participation of the Respondents

76. One of the objectives of the evaluation study was to determine the extent to which participation of the adults in the functional literacy programme affected their social participation. Table 29 gives an account of their participation in various organisations.

Table 29

Social Participation of Adults in Experimental and Control Group

S. No.	Membership of Organisation (Names)	Experimental Group				Control Group
		Batch I	Batch II	Batch III	Total	
1.	*Gram Panchayat*					
	Past :	2	1	4	7	3
	Present :	2	1	5	8	3
2.	Cooperative Society					
	Past :	15	12	6	33	9
	Present :	17	15	5	37	12
3.	Youth Club					
	Past :	2	1	1	4	—
	Present :	3	1	1	5	—
4.	*Bhajan Mandli*					
	Past :	8	7	13	28	7
	Present :	10	9	16	35	9
5.	Political Party					
	Past :	5	3	3	11	7
	Present :	5	3	2	10	6
6.	*Charcha Mandal*					
	Past :	5	1	—	6	—
	Present :	6	1	—	7	—
7.	Total					
	Past :	37	25	27	89	26
	Present :	43	30	29	102	30

77. In the experimental group (all three batches taken together), the participation of adults in various organisations was to the extent of 37.08 per cent in past and 42.5 per cent at the time of investigation. The corresponding figures for the control

group indicate that as many as 32.5 per cent and 37.5 per cent were involved in one or the other organisations in past and at present, respectively. Though there are differences in the extent of participation in the two groups (experimental and control) these do not seem to be very marked and sharp. Hence, it may be inferred that functional literacy has a limited role in increasing the level of social participation of the adults.

H. Teaching/Learning Situation

78. In any educational programme, the teacher plays a vital role and the success depends largely on his skills and efficiency. A teacher with an aptitude to teach illiterates can contribute much to the success of the programme. Teachers, in charge of functional literacy centres, selected for the present evaluative study were interviewed. Number of teachers interviewed as such was twelve. Also, supervisors numbering five were interviewed. One supervisor could not be contacted. The interpretation in this section is based on the information gathered from the schedule meant for teachers and supervisors.

a. Age : The study revealed that most of the teachers (75 per cent)were in the age-group of 25 to 35 years. Only one was above 40 years of age (his age was 56 years). The average teacher in the functional literacy project was, therefore, young. The age of supervisors varied from 37 years to 49 years.

b. Income : The income of majority of the teachers (58 per cent) was about Rs. 125 per month. Rest of the teachers were getting Rs. 100 a month or below for their regular teaching. In addition to all this, teachers were given Rs. 20 per month as honorarium for undertaking teaching work under the functional literacy programme. The supervisors were getting about Rs. 350 per month excluding an honorarium of Rs. 50 per month for the supervision work under the functional literacy programme.

c. Educational Background : Level of education of the teacher or supervisor is also a great contributory factor in efficiency and job performance. An analysis of their

educational background revealed that 50% of the teachers were matriculates; 41.6%, middle-pass while only one (8.3%) intermediate. Of the supervisors, one was post-graduate, one graduate and three were intermediate pass.

d. Professional Training before the Project : Two thirds of the teachers (8 out of 12) had undergone HTC/BTC training while one of the teachers qualified J.T.C. Three (one-fourth) teachers had no training for teaching at all. The duration of the training varied from one to two years. The supervisors had undergone 6 to 15 months' training in agricultural extension splitted over a period of years. Three supervisors had some training in teaching and had H.T.C./J.T.C./N.T.C. Diplomas in addition to the training in extension work. Supervisors received training in the Department of Adult Education, New Delhi.

e. Agricultural Background : Most of the teachers working in functional literacy project had adequate background in agriculture as most of them were practising farmers in addition to their teaching job. A few of the teachers had received training in agriculture at Bakshi-ka-Talab Block, where the courses were organised for them for 3 to 7 days. The supervisors also had a good grounding in agriculture as they were all extension teachers and practising farmers. One supervisor received training in fruit preservation and soil analysis.

f. Equipment at the Functional Literacy Centres : Majority of the teachers stated that roller-black-board, chalks, lanterns, petromax, slates, slate pencils, *tat-pattis*, *durries* were provided to them to run the classes. At some centres, the teachers reported that note books for exercises in writing, pencils, a few posters and charts and some follow-up literature was made available to them. Besides, the Zila Parishad had also supplied musical instruments like Harmonium, *Dholak*, *Jhanjh*, *Manjira*, *Khartal*, *Chimta* for recreational activities in the classes.

g. Professional Experience : 83.3% of the teachers had teaching experience varying from five to ten years. While one teacher had teaching experience of more than twenty-five years, there was a teacher who had only three years of teach-

ing experience. During the period of their service, two teachers taught at four different places; four teachers at three places ; two teachers at two places and four teachers continuously at one place. A majority of the teachers (9) were teaching in basic or primary schools while rest of the teachers were teaching in middle schools. All the supervisors were teaching in middle schools and three out of five supervisors had teaching experience varying from sixteen to twenty-five years. One supervisor had a teaching experience of ten years and the remaining one had a teaching experience of five years. During this period, two supervisors taught at more than seven places. Other three were teaching continuously at one place for over five years.

h. Training in connection with the Functional Literacy Project : In connection with the functional literacy project under report, ten teachers received training either at Bakshi-ka-talab Block or at the places where the supervisors organised training. The training organised at Bakshi-ka-talab was of twelve days' duration and four teachers attended it. Two teachers received training at Bakshi-ka-talab, the duration of which was of ten days and four teachers received some training from the supervisors. The main topics stated to have been covered in the training programme were :

(*a*) Method of teaching the primer
(*b*) Motivation of adults
(*c*) Treatment with the adults
(*d*) Improved agricultural practices
(*e*) Extension method
(*f*) Allocation of inputs
(*g*) Survey of the village and
(*h*) Taking the soil sample.

One teacher thought it adequate while one teacher felt the training was inadequate.

79. All the supervisors received some training concerning the project. 15 days' training programme was arranged by the Department of Adult Education, New Delhi, for the super-

visors where they received training. The topics stated to have been covered in training programme were (a) Psychology of adults, (b) Teaching method in Functional Literacy Programme, (c) Salient features of Functional Literacy Project, (d) Techniques of supervision, and (e) Motivation of adults. Two of the supervisors emphasized the need for refresher courses to orient them with the latest developments in Functional Literacy work.

i. Teacher's Perception regarding Farmers' Opinion about Functional Literacy Programme : All the teachers and supervisors were of the view that, in general, the farmers considered the programme useful. The farmers felt that the functional literacy project had helped in (i) increasing the standard of living of farmers, (ii) increasing their knowledge about agricultural innovations, (iii) increasing production, (iv) acquiring the skills of reading, writing and arithmetic, (v) motivating them for adoption of agricultural innovations, (vi) stimulating participation of farmers in the programme, and (vii) using the gained knowledge for practical purposes.

j. Teacher's Perception regarding Village Teachers' Opinion about the Programme : All the teachers and supervisors except one stated that the opinion of village leaders was favourable to the project. Opinion leaders regarded the programme of much use to the farmers. They felt that the programme had resulted in (i) increase in farmers' agricultural knowledge, (ii) increase in production, (iii) achieving reading and writing skill, (iv) increase in farmers' enthusiasm, and (v) rural upliftment in general. Leaders extended their helping hand to the project at times.

k. Problem Areas under Functional Literacy Project :

(*i*) *Supply of reading material* : Seven teachers experienced no difficulty in supply of reading material. Rest of the teachers interviewed experienced one or the other difficulty which included inadequacy of note-books, no supply of ruled papers and no provision of copy and pencils. One of the teachers felt that quality of the paper was supplied was sub-standard. Two of the supervisors also experienced inadequacy of note

books supplied to Centres and one of them reported delay in distribution of books. Suggestions like supply of ink, pen, copy, pencils and preparation of follow-up material in shape of cards were advanced.

(*ii*) *Supply of teaching material* : One-third of the teachers experienced no difficulty in supply of teaching material to the Centres. Others expressed their concern about the supply of charts which were received in hopeless condition and non-availability of chalks at times. Two teachers felt that the black-board supplied to them was not good. Three supervisors out of 5 expressed no concern about supply of teaching material. However, two of the supervisors experienced inadequacy of chalks supplied, about the black-board and charts which were received by them in deteriorated condition. Use of attractive charts and pamphlets, flannelgraph, flashcard were suggested. Black-board (wooden) needs to be supplied in place of existing rolled-black-board was suggested by one of the supervisors.

(*iii*) *Disbursement of the amount of honorarium* : As many as 8 (67%) out of 12 teachers stated that disbursement of honorarium was never made in time. Likewise, 4 (80 per cent) of the supervisors reported the same. However, 3 of the teachers (25 per cent) did not report any difficulty. One teacher and one supervisor did not make any response. It appears that disbursement of the amount of honorarium was not generally made in time.

(*iv*) *Teaching* : Two of the teachers found the pattern of the teaching, as suggested in *Kisan Saksharata Yojana*, un-suitable. It calls for deeper investigation in this regard. However, four teachers experienced no problem in teaching while other four did not respond. Two supervisors also felt that the pattern of teaching as suggested in KSY was not suitable. One of the supervisors was of the view that enough training has not been imparted to teachers. Two supervisors did not feel any problem in this regard. Punctuality is not observed by the participants in the classroom, was the feeling of two of the teachers. As such, the teachers felt that it was difficult for them to repeat the same for the late comers and found it difficult to take the teaching in planned manner.

(*v*) *Facilities :* Majority of the teachers felt that supply of kerosene oil was inadequate and irregular too. It was also difficult to collect kerosene oil from far away places. Half of the teachers reported the lighting arrangement in the class-room as unsatisfactory. If the petromax went out of order, it became very difficult to run the class and practically classes had to be suspended on all such occasions. One third of the teachers did not approve of the present building arrangement to hold the classes. Some teachers experienced that difficulties were aggravated in rainy and winter seasons. It was impossiblefor them to run the classes at the private residences in varandah in these seasons. Two of the teachers felt the need of big boxes to keep the material in safe condition as at present the records and other material could not be maintained properly for want of an almirah or box. Also locks were needed for their safe custody. In general, the supervisors also supported the view of the teachers with regard to inadequacy and irregularity in supply of kerosene oil, lighting arrangements and suitable places to hold these classes.

(*vi*) *Administrative problems :* Two of the supervisors and one teacher felt that the involvement of Zilla Parishad in the scheme for administrative purposes was not sound. All the supervisors realised the need for a special officer for the project at the district level. Five of the twelve teachers emphasized need for keeping some amount for contingency purposes to be placed at the disposal of the teacher. Likewise, two supervisors also stressed the need for keeping some amount for contingency at their disposal.

(*vii*) *Supervision :* The supervisors felt some difficulties in supervision of functional literacy classes which included (i) no provision of conveyance, (ii) no provision of allowance for maintenance of bicycles owned by them, and (iii) no facility to provide torches, etc., for safety purposes. One of the supervisors pleaded for supply of scooter at control rate on priority basis for effective supervision. According to most of the supervisors contacted more attention needed to be given to their comforts and other facilities.

(*viii*) All the teachers and supervisors reported that the

honorarium given to them under the scheme was not adequate. Above this, most of the teachers had to spend money from their own pockets many times. Suggestions for inclusion of puppet show or film shows under the scheme were put forward by some teachers. The necessity of providing boxes containing samples of agricultural materials and placing them at the disposal of the teachers for demonstration purposes was emphasized by a couple of teachers and most of the supervisors.

I. Problems concerning subject matter and 3 R's

(i) Subject matter : Subject matter of the primer was reported to be all right by a majority of the teachers. Rest of the teachers experienced one or the other difficulty in this respect which included the following :

(i) Subject matter was not systematically arranged ;

(ii) The content of the primer was difficult to follow ;

(iii) The sentences in the primer were lengthy ;

(iv) The subject matter was not in accordance with the crop and season of the locality ;

(v) Primer did not contain any poem ; and

(vi) Local dialect had not been used.

One of the supervisors felt that the subject matter of the primer was all right and two supervisors reported that language of the primer was difficult for the farmers to follow.

(ii) Problems concerning arithmetic : Half of the teachers did not experience any difficulty while one third of the teachers and two of the supervisors felt that the farmers could not understand the whole procedure of additions, subtraction, multiplication and division in prescribed limit of time. Also, one teacher was of the view that farmers were unable to understand the metric system and quintals, etc. Two of the

supervisors felt that the primer contained tough arithmetical problems. Besides, they felt that introduction of arithmetical problems should have started earlier in the primer and not at the end.

I. Late coming, Absenteeism and Drop-outs

80. Questions were put to teachers and supervisors regarding the problems of the late coming, absenteeism and drop-out of participants, in the functional literacy classes. It was found that though punctuality in coming to the classes was not expected as in normal school work, it was nevertheless considered desirable to keep the flexibility of discipline within limit. According to half of the teachers and two of the supervisors, the problem of late coming was not so serious in view of the fact that they have sufficient margin in beginning the actual teaching work. Those who were late in attending the classes had some genuine difficulties either in the field or at home. Thus, the farmers who got late in the fields in agricultural operations or who had some domestic problems like illness in family, presence of guests and relatives, desire to take rest after day's labour in the field, visits outside the village, etc., either got late or had to totally absent themselves for a day or some days, as the case may be.

Drop Outs

81. The participants of the functional literacy classes were asked if they attended full course or they dropped in between without appearing at the annual examination. If they dropped out, they were also asked to indicate the reason for leaving the course.

82. In the total sample of 240 respondents, only 17.50% were drop-out cases. The lowest drop-out rate was reported from Batch III and highest from Batch I, the percentage of drop-outs being 12.50 and 23.75, respectively.

83. The reasons given by the respondents for dropping out from these courses were also studied. The main reasons reported by them were (i) adverse family circumstances (78.50%), (ii) fatigue in the evening after day's hard work on the farm (47.00%), (iii) no spare time (23.08%), and (iv) not interested in reading and writing (16.66%).

84. The above account of the drop-out rate gives an encouraging picture of the project and reflects on the success of the functional literacy scheme.

V. CONCLUSIONS

The general conclusion and implications of the Study are discussed in this chapter.

1. Characteristics of the participants

85. The study showed that the younger farmers are motivated more to join the literacy classes. It was also observed that younger the farmer, higher the literacy achievement.

86. The caste composition showed that majority of the participants belonged either to backward classes or scheduled classes. This finding is very encouraging as the functional literacy programme has gone to that class to whom the need is so urgent.

87. Most of the participants were actually in farming profession, only a small number belonged to farm labour. However, even though they were mainly in farming, almost half of them had a secondary occupation.

88. The land holding was fairly well distributed between 1 to 5 acres, approximately 1/4 of them had land more than 5 acres.

2. Literacy attainments

89. The average speed, approximately of the first, second and third Batches was 17.8%, 22.1%, 16.4%, respectively. Hence, it may be said that the reading ability was approximately 20 words per minute.

90. Alongwith reading, the comprehension was fairly good. The average writing speed was 2.50 words approximately per minute, when they took the dictation.

91. Most of the participants were able to solve the problems in arithmetic. Only 1/5 of the sample population did not show any achievement in arithmetic.

92. Another point which is worth mentioning is that the earlier batch respondents (I and II) had shown better level of literacy than the current III Batch. This indicates that the participants did not relapse into illiteracy. On the contrary, they had shown more frequency in reading newspapers. Hence, it may be said that the interest in literacy is quite sustained. This necessitates a continuous flow of follow-up literature.

93. The literacy level has further shown that higher the achievement, more is the knowledge regarding High Yield Variety package practices, more adoption of farm technology and more favourable attitude towards adult literacy programme.

3. Knowledge and adoption of farm technology related to HYV Seeds

94. The knowledge of the participants regarding HYV of wheat is significantly higher than non-participants. Here also it is observed that the participants of the earlier batches had much more knowledge than the recent batch respondents. This means that not only they took interest in literacy but in their profession also. This is supported by two facts. They had more contacts with the extension agent as well as they had shown more interest in gathering information about the practices.

95. But the knowledge and adoption of *Sankar Jwar* were very disappointing. The knowledge score of all the participants was very poor. This may be because they were not growing jwar but wheat. It may be suggested here that while preparing the literature care should be taken that it deals with the crop which is grown by the majority of the farmers of that region.

96. The adoption behaviour of the participants was found to be better than the non-participants. As the earlier batches' participants had more knowledge and had collected more information they had adopted more practices. It may be also due to the fact that after finishing the course of literacy they got the opportunity to adopt in the following season, while the current batch participants did not get it. It should be

noted here that the selection of sample from three different batches was the right approach.

97. It was observed that higher the literacy level more is knowledge and more is adoption of the practices. This point is particularly interesting because it shows the role of functional literacy in agricultural development.

4. Material possession

98. If possession of items like bicycles and radio is indicator of better living standard, then, from this study, it can be said that literacy is related to possession of such material items. But this could have been said more positively if there would have been information about this prior to joining the class.

5. Social participation

99. It was observed that in general the participation in social organisations was not very appreciable. The reason may be that there were quite a few farmers who were below 25. But in that case also, only a negligible number were participants of youth clubs. Those who were participants mainly participated in cooperative societies and *Bhajan Mandals*. It would be worth investigating further whether there are not many social organisations in which they are interested or whether they are too busy to spare time for any social activity.

Implications and Suggestion for Further Researches

100. Following are some of the implications which have emerged from the field experience in the pilot evaluation and are also based on the findings of the Study :

(i) The timing of the evaluation should be such which is convenient for the respondents. In other words, they should not be awfully busy and should be available for data collection work at leisure. They should accept the evaluators rather than try to dispose them off hurriedly.

(ii) It should be ensured that the participants of the programme (the respondents), respond to the tests,

schedules and other tools in the best possible conditions *viz.*, adequate lighting, sufficient privacy, leisure, etc. Day time should be optimum for administering the tests etc., to guarantee maximum participation against the odds of poor eye-sight, physical discomforts and old age.

(iii) Proper maintenance of attendance registers and other relevant records, like examination results, supervisors' inspection notes, equipment registers—should, invariably be resorted to in implementing the programme of this nature.

(iv) In the attendance registers, columns like those of parentage, caste, occupation, age, etc., should be completed and not left blank to create unwanted confusion.

(v) Teachers should keep notes on adult participation in functional literacy programme reflecting the extent and causes of absenteeism and/or drop-outs. This should have salutary effect on class organisation and on teaching-learning situation.

101. The experience gained in pilot study indicates a need for further research.

(1) The experience shows that there is an immediate need to study the administrative organisation of the functional literacy. The points which are worth studying are :

(*a*) The coordination and communication between the administrative officials ; and

(*b*) Job satisfaction and problems of literacy supervisors and teachers.

(2) Secondly, it is very necessary to find out what are the motivating factors for joining the literacy class ? Also, it is necessary to study the needs, interest and aspirations of the farmers in relation to motivation.

(3) Thirdly, it will be interesting to conduct a follow-up study of the Lucknow Pilot Project. The same res-

pondents may be observed over a period of time regarding their interest in gathering information about their professsion and their adoption behaviour.

4. Case study should be conducted of one or two farmers who have completed the literacy course, are participating in *Charcha Mandal* and have undergone farmers' training. Another case study should be from those who have dropped out of the literacy class and have not shown any interest in learning. Analysis of these cases from psychological, sociological and economic angles will throw a much better light on the Functional Literacy Project.

SUMMARY

1. Purpose

(i) To provide feed-back to planners and operational staff for extending the programme ;

(ii) To test methods and procedures for an expanded evaluation programme analysing pedagogic and socio-economic impact ; and

(iii) To gain valuable first hand experience in evaluation.

2. Organisational and Methodological Details

I. **By Whom** : The Directorate of Adult Education, Ministry of Education & Social Welfare, Government of India

II. **When** : October 1970 to January 1971

III. **Where** : Lucknow District, Uttar Pradesh, India

IV. **Approach** :

1. An ex-post facto design was used to measure impact. This was inevitable due to lack of benchmarks.

2. The respondents (experimentals and controls) were administered a comprehensive interview schedule which contained information on demographic factors (age, caste, occupation) as well as socio-economic variables (land holding, level of possessions) ; status in regard to knowledge, attitudes and adoption of improved practices ; exposure to information sources

and attitudes to them ; and social values. In regard to adop tion of improved agricultural practices, the respondents were asked questions on (a) seeds (b) fertilizers (c) implements, and (d) insecticides to find out the level of change for both the wheat and the jwar (sorghum) crop.

3. A literacy test was administered. There were two reading test passages containing 25 and 27 words, respectively. A passage was dictated to each respondent to test writing. The respondents were also asked to fill up a simple farm plan. For arithmetic the respondents were asked to do ten exercises.

V. Sampling Procedures

Twelve villages (from 4 blocks) were selected as experimental. In each, 20 respondents were randomly selected. Thus the total number of respondents was 240. They belonged in equal numbers (namely 80) to three distinct batches of functional literacy training ; the first had received training one year earlier than the second, and the second one year earlier than the third.

VI. Control

Four villages were selected for control. They were matched on geographic and socio-economic variables. The 80 respondents in these villages were matched on age, occupation and landholding.

VII. Investigators

Investigators trained in research methods and interviewing were employed.

3. Findings and Conclusions

1. *Internal Efficiency of Functional Literacy System* : (i) Except for about 4% all respondents belonged to 15 to 45 years age-group. A little over 45% came from age-group 15 to 25 ; (ii) over 90% belonged to backward and scheduled castes. The other sizeable group was that of Muslims ; (iii) over 90% had farming as their main occupation ; (iv) 22% had land holdings above 5 acres ; less than 2% were landless ; the rest had less than 5 acres of land. These data would show that the programme was mainly directed to the small farmers in the active age-group and coming from the comparatively under-privileged section of Society.

The drop Outs :

Only 17.5 per cent dropped out. The reasons given were :

78.57	per cent	adverse family circumstances.
47.62	,,	too tired in evenings.
23.81	,,	busy, no spare time.
16.66	,,	lost interest.
11.90	,,	sick.
11.90	,,	lessons difficult.
9.52	,,	classes held at great distance.
7.14	,,	class irregular.

2. **Literacy effects : Reading** : (i) Nearly 9% could not read ; 10% could read at speed below 10 words per minute ; 21% between 10 and 20 words per minute ; 25% between 20 and 30 words per minute ; and 32% over 30 words per minute ; (ii) the average comprehension score was about 67% of maximum possible.

Writing : Only about 80% respondents took the writing test and on an average they wrote 2.87 words per minute. Those who could not take a dictation were asked to transcribe and this the majority could do well.

Filling a Farm Plan : Nearly 10% could not fill in a farm plan, the rest were able to do so. 28% did this very well and obtained maximum score.

Arithmetic : (i) Nearly 23% could not solve any exercise; an additional 10% of respondents could solve less than 1/3 correct ; about 12% solved all correct. On the whole, the respondents appear to have done better in reading than in writing and poorly in arithmetic.

Although data were not analysed to assess the extent of retention of literacy skills, it appears that retention was high. In fact, there is a high probability of the participants continuing the exercise of their literacy skills and thereby raising their level. For the participants who learned literacy in the earlier batches the scores are consistently higher (in reading, writing and arithmetic) than for those who only recently finished their course.

3. **Increase in Agricultural Knowledge :** (i) In regard to wheat, the mean knowledge score for experimentals was higher

than that for controls and the difference was significant at .01 level. Also, the mean knowledge score was higher for those who attended the earlier functional literacy classes than for those who attended subsequent classes. This shows that functional literacy made a positive impact on knowledge of wheat farming ; furthermore, respondents made use of time to learn more about wheat after the conclusion of the classes ; in regard to jwar (sorghum), there was a significant difference (.01 level) between the mean scores of experimentals and controls. The 't' test showed no significant difference between the mean scores of those who attended classes in the three time, series. The scores of the experimentals on knowledge of jwar farming were low. The interpretation : people do not exert if the crop is not of significance to them—after all why should they learn about it. It is noteworthy that jwar is not the main crop of the area.

4. **Adoption of improved agricultural practices :** The experimentals fared far better than the controls in regard to awareness, interest, trial and adoption of high yielding variety seeds, fertilizers, implements and insecticides pertaining to both wheat and jwar. The batches which received functional literacy earlier had better scores than those who received training later. Changes in awareness were of a higher order than actual changes in adoption as such.

5. **Attitude to functional literacy :** The experimentals had a significantly more favourable attitude to adult literacy than the controls. The 't' value was significant at .01 level. As between the experimentals belonging to the three batches, there was no significant difference.

6. **Level of possessions :** In regard to level of possessions there was a significant difference (at .01 level) between the experimentals and controls. The literates possessed more items of material comfort. The inference drawn was that functional literacy contributed to improvement of living conditions.

7. **Contacts with extension personnel :** While nearly 40% of experimentals had contacts with the extension personnel

(mainly the village level workers), only 15% of the controls had such contacts.

8. **Exposure to radio** : The literate experimentals listened to radio in large numbers and more often than the illiterate controls. Nearly 60% of experimentals listened as compared to 35% of controls.

Limitations of the Study

1. The study has all the limitations of the ex-post facto design. It is hard to assume that there could be truly effective control group.

2. The fact that participants are a self-selected group points to the possibility of their being inherently different from the illiterates in the control.

3. The literacy test was not subjected to item analysis.

APPENDIX

Farmers' Training and Functional Literacy Project

EVALUATION OF FUNCTIONAL LITERACY

PILOT STUDY IN LUCKNOW DISTRICT

PERSONAL INTERVIEW SCHEDULE

Code No.....
Date of Interview.....
Category of Respondent : I/II/III

A. Socio-Economic Characteristics

A 1. Name of the village or locality.....Block.....
A 2. Name of the Respondent.....
A 3. Age.....
A 4. Sex.....
A 5. Caste.....
A 6. Occupation : Primary :—Farming/Farm Labour/Any other (Specify)
Secondary : Farming/Farm Labour/Any other (Specify)
A 7. Land Holding (in bighas) :—

Area	*Cultivable*	*Non-cultivable*
Land owned		
Land rented in		
Land rented out		
Total :		

A 8. **Material Possessions :**

Does your family have the following possessions ?

Article		
Bullock cart	...	Yes/No
Cycle	...	Yes/No
Torch	...	Yes/No

China/Glass wares	...	Yes/No
Petromax/Electricity (in house)	...	Yes/No
Fountain pen	...	Yes/No
Time Piece	...	Yes/No
Wrist Watch	...	Yes/No
Radio	...	Yes/No
Table and Chair	...	Yes/No
Sewing Machine	...	Yes/No
Factory made shoes	...	Yes/No
Safety razor	...	Yes/No

B. Pedagogical Situation

B 1. Did you ever attend any school or any adultli teracy class before joining functional literacy classes ?

Yes/No

B 2. If yes, Primary School Yes/No

Adult Literacy Class Yes/No

for how long have you been attending the functional literacy class ? Weeks/Months

B 3. Did you complete the functional literacy cours · ?

Yes/No/likely to complete

B 4. If no, what were the reasons for discontinuing the functional literacy class ?

(Investigators to note. Treat the question as open ended Allow the respondent to come out with his own reply and tick mark 'Agree' or 'Disagree' against the following reasons) :

Reasons	*Agree*	*Disagree*
Class was too far from my house.		
Time of the class was not convenient.		
Could not follow the lessons.		
Could not adjust with the teacher.		
Could not adjust with the class mates.		
Adverse family circumstances.		
Subject-matter not relevant.		

Reasons	*Agree*	*Disagree*
Too old to learn the skills of reading/ writing.		
Not interested in learning.		
Too tired in the evening to go to class.		

C. Knowledge related to H.Y.V. of Jwar and Wheat

(Note to Investigators. Ask all the questions open ended first, then tick mark if the answer is as given in schedule)

C 1. Do you grow ?

(A) Jwar Yes/No

(B) Wheat Yes/No

C 2. Have you heard about high yielding variety of

(A) Jwar Yes/No

(B) Wheat Yes/No

C 3. If yes, name them :

A. Jwar	*B. Wheat*
1. C.H.S. No. 1	1. K-68
2. C.H.S. No. 2	2. Larma Rohzo
	3. S. 308
	4. S. 227 (Kalyan Sona)
	5. Sonara 64

C 4. Do you know the advantages of growing ?

A. Sankar Jwar Yes/No

B. H.Y.V. Wheat Yes/No

C 5. If yes, what are they ?

A. Jwar	*B. Wheat*
1. Its yield is more	1. Its yield is more
2. Ear of the corn is long	2. More tillering
3. Crop is stronger	3. Ear grain be compact with more grains than exi ting variety
4. Any other_____	4. Any other_____

C 6. Do you know the sowing method o :

A. Sanker Jwar	Yes/No
B. H.Y.V. Wheat	Yes/No

C 7. If yes, how to sow :

A. Jwar	*B. Wheat*
(*a*) First to till the land deep.	(*a*) plough more time to prepare the land
(*b*) to put cow-dung manure	(*b*) to level the land
(*c*) to level the land.	(*c*) to apply ½ quantity of N 2 fertilizer at that time of sowing
(*d*) to sow them in line.	(*d*) to sow them in lines
(*e*) to sow them at the distance of 10/15 c.m.	(*e*) to sow them at the distance of 18 c.m.
(*f*) seeds must be sown 4 c.m. deep	(*f*) Seed must be sown 4.5 c.m. deep

C 8. Do you know which fertilizers are used for Sankar Jwar and/or H.Y.V. Wheat ?

Fertilizer	*A. Jwar*	*B. Wheat*
(*a*) Nitrogen		
(*b*) Phosphoric Acid		
(*c*) Potash		

C 9. Do you know how much fertilizer is to be given per acre ?

A. Jwar	*B. Wheat*
(*a*) Nitrogen-15 kg.	(*a*) Nitrogen 35-50 kg.
(*b*) Phosphoric Acid 20-25 kg.	(*b*) Phosphoric Acid 20-25 kg.
(*c*) Potash—14 kg.	(*c*) Potash—25 kg.

C 10. Do you know the names of the insect/pest which effect the :

(A) Jwar Crop	Yes/No
(B) Wheat Crop	Yes/No

C 11. If yes, which are they :

(A) Jwar	*(B) Wheat*
(*a*) Makkhi	(*a*) Mahan
(*b*) Sunga	(*b*) Termites
(*c*) Kamala	(*c*) Gujhiya
(*d*) Bhunga	(*d*) Rats
(*e*) Any other_____	(*e*) Any other

C 12. Do you know which insecticide/pesticide is used for this purpose ?

Yes/No

C 13. If yes, which are they ?

(A) Jwar	*(B) Wheat*
1. B.H.C. (5%)	1. B.H.C. (5%)
2. Aldrin	2. Zinc Phosphide

D. Adoption of Innovation

D 1. A. Jwar

Innovation	*Have you heard about it ?*	*Have you obtained more information about it ?*	*Have you tried it ?*	*Do you use it ?*	*Extent of Bighas*	*Extent of quantity*
I. Seed						
II. Fertilizers						
III. Implements						
IV. Insecticides						

D 2. B. Wheat

Innovation	*Have you heard about it ?*	*Have you obtained more information about it ?*	*Have you tried it ?*	*Do you use it now ?*	*Extent of Bighas*	*Extent of quantity*
I Seeds						
II Fertilizers						
III Implements						
IV Insecticides						

E. Mass Media Exposure

E 1. Newspaper :

(i) Do you read any newspaper ? Yes/No

(ii) If yes, which one ?

(iii) How many times a week ?

E 2. **Radio Exposure**

(i) Do you listen to the radio ? Yes/No

(ii) If yes, what programmes do you listen to and how often ?

Type of Programme	*Frequency of listening per week*
Radio Farm Forum	
Krishi Jagat	
Panchayat Programme	
Weather Forecast	
News	
Songs	
Dramas	
Any other (specify)	

F. Contact with the Extension Agency

F 1. How often did you discuss, during the past year, matters related to farming with the :

Officers	*Frequency*
V.L.W.	
A.E.O.	
B.D.O.	
Officers of the Farmers' Training Centre	
Other Agril. Officers	

F 2. Do you receive from them technical guidance in matters related to farming ? Yes/No

F 3. If yes, is it adequate ? Yes/No
Is it timely ? Yes/No

G. Social Participation

G 1. Are/were you member of these organisations ? Yes/No

G 2. If yes,

Organisation	*Past*		*Present*	
	Member	*Office Bearer*	*Member*	*Office Bearer*
1	2	3	4	5
1. Gram Panchayat				
2. Block Panchayat				
3. Gita Samiti Parishad				
4. Cooperative Society				

1	2	3	4	5
5. Youth Club				
6. Bhajan Mandal				
7. Political Party				
8. Discussion group or *Charcha Mandal*				
9. Any other welfare organisation (specify)				

H. Attitude Towards Adult Literacy

H 1. Please state whether you 'agree' or 'disagree' with the following statements ?

Statements	*Agree*	*Disagree*	*Undecided*
1	2	3	4
1. Everyone should become literate to become more efficient in one's own profession.			
2. It is not necessary to become literate for those who are earning good money.			
3. Everybody should become literate to gain more knowledge about the world.			

1	2	3	4
4. It is a waste of time to join a literacy class.			
5. It is below the dignity of an adult to attend a literacy class.			
6. Everybody should become literate to raise his/her social status.			
7. Everybody should become literate to increase the dignity of nation.			
8. It is waste of national money by having literacy programmes for adults.			